

**Abstract of the Invention**

The present invention provides processes and apparatuses for mounting radiation treatment blocks on a radiation treatment block mounting plate, adjusting a radiation treatment block in a radiation treatment beam and forming a radiation treatment block. The present invention provides a method of mounting a radiation treatment block on a radiation treatment block mounting plate that minimizes or eliminates the creation of toxic and hazardous dust and waste and radiation treatment block misalignment problems. The apparatuses and processes of the present invention also provide an adjustable radiation treatment block mounting tray and method for easily and precisely adjusting a radiation treatment block to a radiation beam for the prescribed treatment of a patient.

The present invention further provides apparatuses and methods for forming a radiation treatment block using a template with the perimetric outline of different sized radiation treatment blocks with a commercially-available foam block cutting machine to make a foam mold for casting a radiation treatment block.